

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Claims 1-7 (canceled).

Claim 8 (currently amended): A method comprising:

providing a semiconductor device having at least two metal interconnect layers and a dielectric layer comprising a hydrophobic low dielectric constant material between the metal interconnect layers;

sectioning the device through the two metal interconnect layers and the dielectric layer;
etching the device in an aqueous solution of HF and HCl, wherein the weight ratio of HF to HCl in the solution ranges from 1:3 to 4:1, and so that the two metal interconnect layers and the dielectric layer are visible through a scanning electron microscope and so that the etching does not stop on the low dielectric constant material and the dielectric is etched;
analyzing the etched device through a scanning electron microscope.

Claim 9 (currently amended): A method as set forth in claim 8 wherein the weight ratio of HF to HCl in the solution ranges from 1:3 to 4:1 8 wherein the sectioning is accomplished using a focused ion beam.

Claim 10 (original): A method as set forth in claim 8 wherein the low dielectric constant material includes -OR groups wherein R is a hydrocarbon derivative.

Claim 11 (original): A method as set forth in claim 8 wherein the low dielectric constant includes methyloxy groups.

Claim 12 (original): A method as set forth in claim 8 wherein the metal interconnect consists essentially of copper.

Claim 13 (original): A method as set forth in claim 8 wherein the metal interconnect comprises aluminum.

Claim 14 (original): A method as set forth in claim 8 wherein the step of etching the device is carried out by dipping the device in a bath of the aqueous solution of HF and HCl.

Claim 15 (original): A method as set forth in claim 8 wherein the low dielectric constant material has a dielectric constant less than 3.8.

Claim 16 (original): A method as set forth in claim 8 wherein the low dielectric constant material comprises fluorosilicate glass.

Claim 17 (currently amended): A method as set forth in claim 8 wherein the aqueous solution includes deionized water and wherein the weight ratio of the deionized water to either HF or HCl ranges from about [[20:1]] 1:20 to 6:5.

Claim 18 (canceled).

Claim 19 (original): A method as set forth in claim 8 wherein the low dielectric constant material comprises an organosilicon.

Claim 20 (original): A method as set forth in claim 8 wherein the low dielectric constant material comprises an organic based film.

Claim 21 (canceled).

Claim 22 (previously presented): A method as set forth in claim 8 wherein the low dielectric constant material includes $\text{Si}(\text{CH}_3)_x\text{O}_{2-x}$.

Claim 23 (canceled).

Claim 24 (canceled).